NOTES ON A DEFORMED WORKER OF THE ANT GENUS *IRIDOMYRMEX* (HYMENOPTERA: FORMICIDAE)

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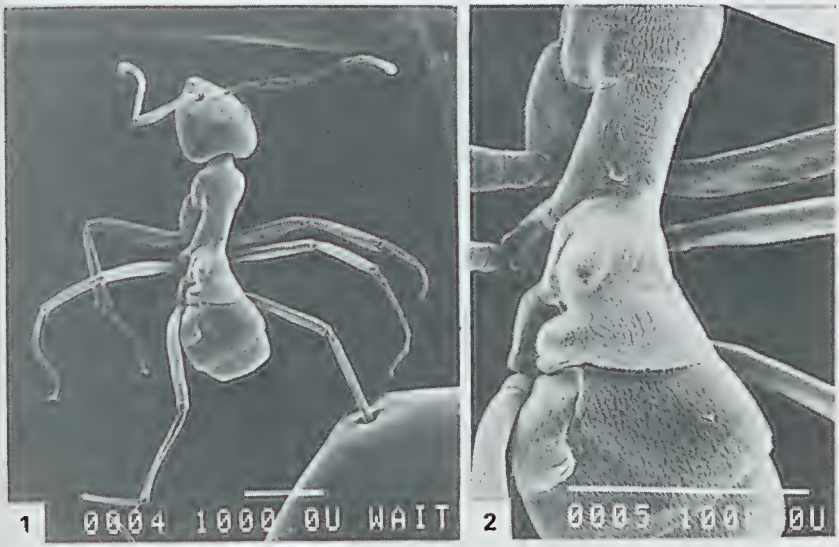
Abstract

A deformed worker of *Iridomyrmex* sp. 21 (ANIC) is described and the cause of the deformity is postulated.

Workers of *Iridomyrmex* sp. 21 (ANIC), a member of the *agilis* species group, were recently collected by pitfall trap in jarrah (*Eucalyptus marginata*)/marri (*Eucalyptus calophylla*) open-forest at Red Hill, 28 km north-east of Perth G.P.O. One of the specimens was deformed, and two scanning electron micrographs of it are shown in Figs 1 and 2.

Anterior to the mesonotum the specimen is externally normal. However, the propodeum and gaster are fused. This gives the ant an hourglass shape. The petiole is enlarged and situated to the left of the midline. Slightly anterior to this, and adjacent to the propodeal spiracle, is a small conical protuberance, also situated to the left of the midline. A large sclerite is visible on the left hand side of the first gastral segment (abdominal III). This appears to be a sternite which has extended upwards from its normal position.



Figs 1, 2. Scanning electron micrograph of dorsal surface of deformed *Iridomyrmex* sp. 21 (ANIC): (1) general view; (2) close-up of deformed area. The horizontal bars represent 1000 microns.

The cause of this abnormality is not known. Similar deformities are uncommon but not unknown in Australian ants. This could, however, be due to the early mortality or reduced mobility of deformed specimens. The present example was evidently able to forage, since it was caught by pitfall trap.

The ant is distinctly pupoid in shape, indicating that the deformity might have arisen due to events which occurred during the pupal stage. Possibly the pupa was physically damaged in some way leading to abnormal deposition of adult cuticle. This could explain the localised nature of the deformity. Another reason could be the presence of internal parasites such as nematodes which might have interfered with normal body development. There is no direct evidence here of such parasitism. It is further possible that the ant is a gynandromorph (Wheeler 1937). In this case the abnormality would have arisen from a late developmental cleavage, since the deformity is localised. The abnormal area does not resemble male tissue, so the gynandromorph explanation seems unlikely.

The specimen is deposited in the Australian National Insect Collection.

Acknowledgement

I wish to thank Ms E. Van Der Pennen for preparing the scanning electron micrographs and Dr R. W. Taylor.

Reference

Wheeler, W. M., 1937. *Mosaic and other anomalies among ants.* Harvard University Press, Cambridge, Massachusetts.

TWO MORE FOOD PLANTS FOR *POLYURA PYRRHUS SEMPRONIUS* (F.) (LEPIDOPTERA: NYMPHALIDAE)

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During December 1981 and January 1982 I observed a larva of *Polyura pyrrhus sempronius* (Fabricius) feeding on *Acacia saligna* at Lugarno, Sydney. The larva pupated successfully and emerged in late January. I have also observed *P. p. sempronius* larvae feeding on *Acacia baileyana* and *Acacia spectabilis* in the same area.

On 14th January 1982, a *P. p. sempronius* was observed in Oatley Park, Sydney, ovipositing on *Acacia prominens* (Gosford wattle) but further observations were not possible.

Neither *Acacia prominens* nor *A. saligna* have previously been recorded as food plants of *P. p. sempronius* (Common and Waterhouse, 1981).

Reference

Common, I. F. B. and Waterhouse, D. F., 1981. *Butterflies of Australia.* Second Edition. Angus and Robertson, Sydney. 682 pp.